A NEW SPECIES OF GEKKONID LIZARD, GENUS *DIPLODACTYLUS*, FROM THE CARNARVON REGION, WESTERN AUSTRALIA

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The widespread and diversified gekkonid lizard genus *Diplodactylus* (Gray) is found throughout almost all of Australia. However, by far the greatest concentration of species is in Western Australia, primarily the Carnarvon and North-West Regions (Clarke, E. de C., *Jour. Roy. Soc. West. Aust.*, 12, 1927: 117-132). While studying the large collections in the Western Australian Museum and the Department of Zoology of the University of Western Australia in preparation for a revision of the genus *Diplodactylus* five specimens were discovered which represent still another species from the Carnarvon Region. This very distinctive species with enlarged sharp conical scales covering the dorsal surface of the body is here described as

Diplodactylus squarrosus sp. nov.

Holotype: R13805 (Western Australian Museum). Collected at Hamelin Pool, Shark Bay, Western Australia, on May 14, 1959, by W. H. Butler.

Diagnosis: *Diplodactylus squarrosus* is unique within the genus in possessing a rectangular rostral shield, more than two and one-half times broader than deep, and greatly enlarged conical mid-dorsal body scales (Fig. 1).

Description of Holotype: Head somewhat flattened; eye large; rostral rectangular, 2.7 times broader than deep; dorsomedian rostral

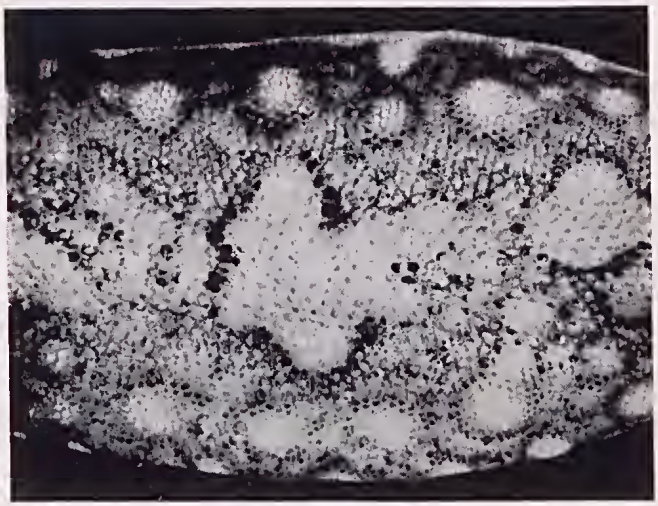

Fig. 1.—A dorsal view of the body of the holotype of *Diplodactylus squarrosus* showing the enlarged conical scales.

crease absent; nostril large, surrounded by first supralabial, two postnasals and two enlarged supranasals; anterior supranasal greatly enlarged, broadly in contact with counter part of opposite side and first supralabial; scales immediately posterior to supranasals enlarged; supralabials 8/9 (left and right sides respectively); 11/12 scales between nostril and anterior margin of orbit; twenty-six scales between centrolateral margins of orbits (excluding those of dorsal eyelid); four spinose scales on posterior border of dorsal eyelid; mental oblong, almost twice as long as broad; infralabials 7/8; scales bordering mental and infralabials slightly enlarged and flattened, gradually grading into granules of throat region; external ear opening small, almost round; dorsal body scales conical, at least twice as large as ventrals; dorsal region of conical scales sharply defined from smaller and more granular scales of sides and venter (Fig. 1); dorsal surfaces of limbs covered with flat slightly imbricating eyeloid scales, those of ventral surfaces slightly more conical; digits long and slender, only slightly depressed; subdigital areas covered with small conical granules; subapical plates of digits small, twice as long as broad; claws moderately curved, strongly projecting beyond sheath; 11/12 granules covering inferior surface of fourth finger; 14/15 granules covering inferior surface of fourth toe; tail covered with flat imbricating eyeloid scales, equal in size to dorsal midbody scales, forming definite annuli; sex—male; two sharp, strongly projecting cloacal scales at base of tail; two preanal pores, separated on midline by six scales.

Head covered with fine brown reticulation, somewhat concentrated on occipital region; postocular reticulation continuous over nape; dorsal surfaces of body and appendages with dense brown reticulation; large white spots on limbs and lateral region of body; four enlarged irregularly shaped white marks on vertebral region of body, seven on tail (Fig. 2).

Fig. 2.—A dorsal view of the holotype of *Diplodactylus squarrosus*.

Snout-vent length 44.6 (all measurements given in millimetres); length of tail (unregenerated) 33.0; length of snout 4.7; head width 8.5; distance between eye and ear 3.5; diameter of orbit 3.8; axilla to groin 21.7; length of fore limb 15.8; length of fourth finger 2.7; length of hind limb 22.9; length of fourth toe 4.1.

Variation: In the collection of the Department of Zoology of the University of Western Australia are three juvenile specimens and an adult male from seven miles north and twelve miles south of Booloogooroo, respectively. These specimens agree with the holotype in all respects except the following: Rostral shield two and one-half to almost three times broader than deep; supranasals separated by a single scale in one juvenile; supralabials nine to eleven, avg. 10; eleven to thirteen, avg. 12, scales between nostril and anterior margin of orbit; twenty-five to twenty-nine, avg. 27.2, scales between centrolateral margins of orbit; mental slightly longer than broad to broader than long; infralabials eight to ten, avg. 9.3; mid-dorsal body scales more oval than conical in juveniles; ten to thirteen, avg. 11.6, granules covering inferior surface of fourth finger; fourteen to seventeen, avg. 15.7, granules covering inferior surface of fourth toe; preanal pores absent; cloacal scales undeveloped in juveniles; reticulation brown to brick-red; vertebral region of body and tail white, devoid of reticulation.

Relationships: *Diplodactylus squarrosus* appears to be most closely related to *D. stenodactylus*. This relationship is based on the similar shape and scalation of the digits and the peculiar position of the nostril between the supranasals, first supralabial and two to three postnasals.

Remarks: The three juvenile specimens from 7 miles north of Booloogooroo were excavated from lizard burrows, probably those of *Amphibolurus reticulatus*. The adult male from 12 miles south of Booloogooroo was collected at night on a small relatively hard clay-pan.

NOTES ON THE SLOUGHING IN CAPTIVITY OF SKINKS OF THE GENUS *TILIQUA*

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Specimens of *Tiliqua* spp. in one of the writer's vivariums have been observed to exhibit a distinct behavioural pattern associated with the process of sloughing. These observations form the basis of the present note.

Hickman (1960) described the sloughing of the skink *Egernia whitii*, but similar information on *Tiliqua* has not been traced in the literature.

EXPERIMENTAL CONDITIONS

Specimens of *Tiliqua scincoides*, *T. gigas* and *Tiliqua* [*Trachysaurus*] *rugosa* were housed communally in a vivarium of the fol-